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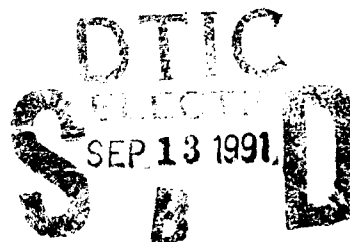
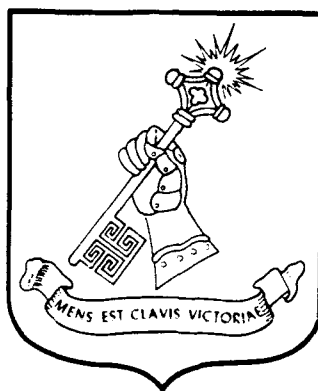


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**Defensive Culmination - When Does the Tactical
Commander Counterattack?**

**A Monograph
by**

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ABSTRACT

DEFENSIVE CULMINATION - WHEN DOES THE TACTICAL COMMANDER COUNTERATTACK?

by Major William W. Hamilton, USA, 45 pages.

One of German General Carl Von Clausewitz's key concepts is culmination. His primary work On War describes culmination for the attacker as the point beyond which he can no longer continue his attack and risks destruction from a counterattack. For the defender it is the point beyond which the defender gains no more advantages by continuing his defense. At this point the defender must decide to act. Clausewitz envisioned that at this point the defender would release his flashing sword of vengeance and counterattack. Clausewitz developed the concept of culmination for what we regard today as the strategic and operational levels of war. This paper seeks to answer the question, Does the concept of defensive culmination apply at the tactical level and can the tactical defender use it to determine when to counterattack?

This paper uses three historical examples to examine when and how commanders executed tactical counterattacks. The examples are used to evaluate a theoretical framework of Clausewitz's defensive concepts. The criteria used to evaluate the historical cases are: defensive preparation, terrain, availability of intelligence on the attacker, timing for the defender and attacker, determination of the defender's defeat mechanism, depth of the defense, type of counterattack, the timing of the counterattack, and condition of the attacker and defender when the counterattack was executed. The key concepts examined are culmination and counterattack timing.

The study concludes that the tactical defender can use the concept of culmination in his counterattack but not in Clausewitz's context. At the tactical level the attacker does not culminate merely by attacking a defensive position. The defender must cause the attacker to culminate through offensive action. The defender should not wait for the attacker to wear himself down, but should use the strength of the defense to break the attacker's momentum and counterattack as soon the opportunity is presented.

The implications are that tactical defenders should seize the initiative as soon as possible and counterattack.

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I. Introduction

Meeting future challenges of combat requires the U.S. Army to stop an enemy attack, seize the initiative, and win the first battles of the next war. Our doctrine emphasizes decisive offensive actions. Although our Army's doctrine is aggressive, our national strategy is to deter war.

Our nation is peace loving. We would not invade another nation without provocation. In most cases our armed forces would be in a defensive posture first while our national leadership would try to solve any potential conflict with the other elements of national power. This situation demands that our forces key on defensive operations and how to transition from defense to offense when necessary.

Defensive operations are a key part of our otherwise offensive doctrine. "Defensive operations retain ground, gain time, deny access and defeat attacking forces." ¹ This last point is important because AirLand Battle doctrine orients on the destruction of enemy forces. The defender defeats attacking forces either by wearing down the attacker or destroying him with a counterattack. It is best to use a combination of defensive and offensive actions to create the maximum destructive force at the right time and place. The arrangement of actions in time and space

is the essence of the AirLand Battle tenet of synchronization.

In AirLand Battle the commander must synchronize his forces to achieve the most destructive effect. Nowhere is this more critical than in the defense, and more specifically the timing and placement of the counterattack. This paper will attempt to provide the tactical commander with some theoretical insights into when to execute his counterattack.

This paper initially will address the theory of the defense in Section II. Section III is a discussion of methods of analysis including the criteria I plan to use. Section IV is an analysis of three historical case studies of tactical defenses. Finally, I discuss conclusions and the implications of the conclusions.

II. Theory

The U.S. Army's defensive doctrine prescribes that defending consists of a defensive and an offensive element. The commander should have a true defensive portion that absorbs an enemy attack and reacts to the enemy's moves. Clausewitz called this the passive part of a defense.² According to AirLand Battle doctrine, this portion of the defense should seek to create an opportunity to transition to offensive action. Indeed as far as AirLand Battle doctrine is concerned, the creation of an opportunity for offensive action may be

the main reason for defending. "While reactive measures may halt the enemy, early counterattacks improve the chances for success." ³

The counterattack is clearly the key or decisive action in the defense. The aim of the defense should be the defeat of the enemy. To defeat the enemy requires that the defender take offensive action.

Although the aim of the defense is the defeat of the enemy, defense has an overall negative objective. Clausewitz believed that one can achieve objectives only by offensive action. The defender must attack because "... the greater object is bought by the greater sacrifice." ⁴ In the offense, one is destroying the enemy, thwarting his plans and imposing one's will. The defender must attack if he is to achieve his aims and not just hold on to what he already has.

Clausewitz's concept of defense consists of two components. The first is waiting and absorbing the blow. This is the pure defensive or passive component. The active component is the attack. The defense parries the blow and opens the attacker to the counterstroke. Clausewitz also described a defensive point of culmination that occurs when the defender's strength has reached its zenith relative to the attacker. This is the time to act. This action could be either to

counterattack or to continue the defense. Whatever the action, the advantages of the defender no longer accrue after this point. °

The other, more well-known, concept of culmination -offensive culmination, occurs when the attacker has pressed an attack until he can no longer continue. Through attrition and lengthening of lines, the equilibrium between attacker and defender shifts and the attacker no longer has the strength to continue his attack. °

Theoretically, the attacker should culminate about the same time or just prior to the defender reaching his defensive point of culmination. At this point the attacker is vulnerable and not ready to receive a riposte. The defender will not gain any more advantages by waiting and thus must act. It is time for a counterattack. °

The relational strength between the attacker and defender changes due to differences in losses. The attacker will lose more men taking a prepared defense than the defender. By advancing, the attacker's power declines as he moves away from his base of operations. Thus the strength of the defender increases relative to the attacker. As long as this relationship exists the defender can delay any decision to act.

So long as the defender's strength increases everyday while the attacker's diminishes, the

absence of a decision is in the former's best interest; but if only because the effects of the general losses to which the defender has continually exposed himself are finally catching up with him, the point of culmination will necessarily be reached when the defender must make up his mind and act, when the advantages of waiting have been completely exhausted. *

One problem still remains. Clausewitz wrote about the strategic level of war. However, many of Clausewitz's strategic writings are mixed with concepts we would regard today as pertaining to operational warfare. Clausewitz also wrote about the tactical level of warfare. It is often difficult to clearly distinguish which level Clausewitz is referring to in his writings since he discusses both strategic and tactical concepts. Equating them to modern terms is difficult.

Since Clausewitz seems to have discussed the concept of culmination at the strategic and operational level, my task is to determine if defensive culmination has utility for the tactical commander. To do this we must understand Clausewitz's concept of war and defense. As we are trying to make an evaluation of an operational concept at the tactical level we must first distinguish between the levels of war in his view.

Clausewitz defined tactics as "the use of armed force in the engagement." * The engagement is the fight itself. He further defines strategy as the use of

engagements for the object or purpose of war. ¹⁰ In Napoleonic warfare, the decisive battle or series of battles set the terms for victory in a campaign or war. Thus his strategy usually equates to our operational art defined as: "the employment of military forces to attain strategic goals in a theater of war or theater of operations through the design, organization and conduct of campaigns and major operations." ¹¹ We must now explain Clausewitz's concept of defense and how to use its characteristics as criteria.

III. Methods of Analysis

My criteria are Clausewitz's characteristics of a defense. By using characteristics that Clausewitz argues comprise his concept of the defense, I can compare his concept of the defense to historical examples of defense and their accompanying counterattacks. These characteristics should also set the conditions under which a defensive culminating point will occur. My plan is not to pinpoint when culminating points occur, but to describe the conditions and actions of the attacker and defender when the attacker culminates, and when the defender counterattacks.

This evaluation of historical examples will allow us to assess the validity of the concept in certain tactical situations. The broader implications will lead

to insights about the timing of tactical counterattacks and if their success or failure validates Clausewitz's concept of a defensive culmination point at the tactical level. The point is to gain insights as to how to structure tactical defenses and when to counterattack.

I will use the following criteria to examine the historical cases: defensive preparation, terrain, availability of intelligence on attacker, technology, when or if the defender attacks first, defensive defeat mechanism, depth, type of counterattack and timing of counterattacks. What follows is an explanation of the criteria.

The first criterion is preparation of the defense. Specifically - was the defense prepared or hastily occupied and what time and resources did the defender have to work with? The second criterion is terrain. The defender chooses where to fight. He should choose terrain that allows him to gain a positional advantage over the attacker. I will therefore determine if the defender used the terrain to his advantage. The third criterion is the availability of intelligence. Since the defender is stationary and the attacker is exposing himself by moving, the defender should have good intelligence on the attacker's strength, composition, disposition and the location of his attack.

Technology is the fourth criterion. I will use it to compare attacker and defender capabilities. Clausewitz wrote at a time when most European armies were comparably equipped and manned. Therefore, in a battle, if one army has a marked technological advantage over the other, the defeat of one of the armies may happen due to this advantage alone. In a case where attacker and defender are not roughly equivalent in capability, it becomes difficult to attribute success or failure to Clausewitz's characteristics of defense.

Clausewitz clearly intended the defender's "shield of blows" to represent deliberate, planned counterattacks to seize the initiative. Since the counterattack is key to the success of the defense, the sixth criterion must be to determine if the defending commander initially planned a counterattack to defeat the attacker.

What about the issue of depth? Depth at the tactical level is relative to the area one must defend and the forces with which one has to defend. Clausewitz wrote about the attacker invading another country and thus enabling the defender to fall back into his own land and absorb this blow. At the tactical level, the defender may well not have this kind of depth and thus the concept may not be valid where the tactical

defender simply cannot structure his defense in depth.

Did the defender counterattack only with fires or with fires and maneuver? The modern tactical commander has the option of closing with an attacker with maneuver forces or possibly attacking him with indirect fires. In Clausewitz's day, to attack meant to close with the enemy and fight. Thus when we describe a counterattack today, we must determine if the tactical commander is counterattacking using fire only, or if he counterattacks with fire and maneuver forces. Due to the ranges of weapons in Clausewitz's day, he clearly envisioned closing with the attacker. But, if the tactical counterattack is by fire only, it poses less risk to the defender's maneuver forces. This makes a difference to the strength relationship and may be outside of the parameters of Clausewitz's concept of defense.

Finally, there is the timing of the counterattacks in the historical cases as they relate to the conditions of both attacker and defender. This is the most important criterion because it will give us insights into whether either the attacker or defender could have continued. These insights will tell us what a defensive culmination point may look like in terms of defender strength , disposition and intentions versus attacker strength, disposition and intentions.

I will look at the cases in light of each of these criteria because the criteria correspond to Clausewitz's characteristics of the defense. The implication is that by structuring and executing a tactical defense based on these characteristics, the tactical commander should experience conditions similar to what Clausewitz conceived. Thus the point of culmination should occur about as he postulated. Consequently the success or failure of the counterattack or other action executed at this point should provide us insights about the validity of his concepts.

IV. Historical Analysis

ARDENNES 1944

By late 1944 the U.S. 4th Infantry Division, taking heavy casualties, had fought its way from Normandy to the Hurtgen Forest. On 1 December, the 4th Division moved to a quiet part of the Ardennes sector. The division was defending, but more importantly, recuperating from the previous month's battles.¹² The 4th Division was opposed by the 212th **Volks**grenadier Division (VGD) in this sector. Like the 4th Division the 212th VGD had taken heavy casualties. The German High Command had the 212th VGD refitted in Poland and moved to the west in preparation for the Ardennes offensive, scheduled to begin 16 December 1944. The 4th

Division would happen to find itself on the southern shoulder of the German attack.

The 4th Division did not have much time to prepare its positions. The division closed into its sector on 13 December and the Germans attacked less than 3 days later in the early morning of the 16th. The 4th Division was not prepared for the attack. The division was short 2000 men and had lost 50% of its equipment in earlier fights. Furthermore, many of the men were on leave. ¹³ The defending forces were spread thin and not expecting an attack. Clausewitz's concept of the defense being the stronger form of war is based in part on the defender having the chance to prepare his defense. The 4th Division did not enjoy all of these advantages because they were not prepared. They had no positions prepared in depth, no counterattack plan, and little mobile reserve.

However, what the 4th Division lacked in prepared positions, it made up for in terrain. The terrain in the division's sector favored the defender. It was characterized by sharp changes in elevation, heavy forest, several rivers and creeks, and built-up areas.

¹⁴ This component of the 4th Division's defense compares favorably with the concept which presupposes that the defender should have the advantage of terrain. However, the concept of the stronger defense also

presupposes that since the defender is stationary and the attacker is moving, the defender should have intelligence on the approaching enemy. This was not the case.

The lack of intelligence and the failure to properly interpret intelligence indicators at all levels caused the division to be totally surprised.¹⁵ The 212th VGD had been in sector for several weeks developing intelligence on the enemy. Using human intelligence sources, the Germans had pinpointed all of the divisions outposts prior to the attack.¹⁶ Thus, the 4th Infantry Division's defense did not substantiate Clausewitz's concept of greater defensive strength due to the defender's ability to have better intelligence. The defender should be able to develop intelligence on the attacker as he moves to position himself for the attack. In fact, U.S. reconnaissance did pick up greatly increased rail movement as early as 3 November 1944, but either ignored or misinterpreted the indicators.¹⁷

Both the U.S. and German forces possessed similar technology. The U.S. M4 tank, 57mm anti-tank gun, and 90mm tank destroyer were generally equivalent to the German Mark IV and Panther tank, 75mm anti-tank gun, and 88mm tank destroyers. Clausewitz's defensive concepts were developed at a time when European armies

were technologically equal. Modern technology could void Clausewitz's concept of defensive culmination if one side has a technological edge over the other. The 4th Division did not attack the 212th VGD first. Prior to the start of the Ardennes offensive the 4th Division was in the defense. This readiness posture was within the intent of the First U.S. Army, 12th Army Group, and VII Corps. They intended for the division to rest after several months of combat. This is in concert with Clausewitz's concept that a defender should let the attacker wear himself down against his defenses prior to counterattacking.

Since the 4th Division's main objective in the Ardennes was recuperation, it is doubtful that it had planned counterattacks as a major part of its defensive plan. The only mobile, armored force available to the division was the 70th Tank Battalion which had only 11 of its 44 tanks operational. ¹⁸ Thus there was no viable force for an immediate counterattack.

Although the 4th Division did have the available area to defend in depth, its shortage of manpower caused the defenses to be spread thin on a wide front. The Germans were able to pinpoint platoon and company outposts prior to the attack. On the first day's attack the Germans infiltrated, bypassed, and surrounded all five of the forward companies of the 12th Infantry

Regiment. ¹⁹ The division later used the available depth to blunt the German attacks. Between the 16th and the 19th of December the division delayed, defended, and counterattacked over a distance of 13 kilometers. The 4th Division occupied an area 35 miles wide and 20 miles deep. The depth was there, but due to the shortage of resources the division used it only after the attack. Although the defense was not initially planned in depth, it later used depth in accordance with Clausewitz's concept of defending in depth. Through this action it took the Germans three days to reach their first day's objective. ²⁰

The 4th Division's infantry regiments conducted counterattacks by maneuvering to engage the Germans with infantry weapons and artillery. No counterattack was conducted by fire alone. Although each regiment was supported by a 105mm Howitzer battalion and two medium howitzer battalions ". . . the added firepower was insufficient to allow the division to mass fires at any point along its extended front." ²¹ Therefore the type of counterattacks conducted were with maneuver forces and not by fire alone.

The Ardennes case study validates Clausewitz's concept of surprise in the defense. The Germans encountered unexpected resistance in the towns. This proved to be effective in blunting their attack.

The stubborn and successful defense of towns and villages close to Sauer had blocked the road net, so essential to movement in this rugged country, and barred a quick sweep into the American rear areas. ²²

Clausewitz implies that the defense should wear down the enemy to make him reach a culminating point prior to counterattacking. The forward regiments of the 4th Infantry Division were not initially able to take on the German attack. Having excellent intelligence on the American positions, the 212th VGD infiltrated and bypassed these forward positions. However, other U.S. forces were able to organize centers of resistance around built up areas. The Germans could not easily bypass these positions. This resistance controlled major avenues of approach and allowed the U.S. 12th Infantry Regiment to launch counterattacks on the first day. ²³

When the 4th Division launched its first counterattacks, the 212th VGD had not been attrited. In fact, the 212th VGD was nearly at full strength because it did not launch its first major attack until 19 December. ²⁴ Likewise, the U.S. 12th Regiment had not sustained major casualties by the time it executed its first counterattacks, but the division in general was in a state of confusion due to the surprise of the German attacks, failure of the command to fully realize what was happening and confusion in the command and

control system.

Although the number and strength of the counterattacks increased, they only slowed the German attack. Local counterattacks up to battalion size continued until the 212th VGD's attack stalled due to an armored counterattack on 18 December. ²⁵ On 19 December the German 212th VGD committed the 423rd and 316th Regiments, but a counterattack by the U.S. 10th Armored Division isolated and defeated these attacks. By 19 December the 4th Division was able to advance using counterattacks by several task forces formed from within the division. By 20 December the initiative had shifted from the German 212th VGD to the U.S. 4th Division. By 21 December the Third U.S. Army was attacking with the III and XII Corps. By 7 February the allies had eliminated the German salient. The Battle of the Bulge was over.

One draws the following conclusions concerning Clausewitz's theory from this first case study: If the tactical defender starts in a position of inferior strength he may not become stronger relative to the attacker. The 4th Division received no reinforcements and took attrition of 50%. The division did not get stronger overall but achieved local superiority in combat power through counterattacks at critical points.

According to the theory, the power of the attack

declines in proportion to the advance. The 212th VGD's momentum slowed as it advanced against the defenses of the 4th Division. This opened windows of opportunity for counterattacks that destroyed the German's strength.

A tactical counterattack when launched immediately can be most effective in slowing an attacker's momentum. The 4th Division could not wait for the 212th VGD to wear down because the Americans were caught by surprise. The American defense was not well organized and the best defense was to attack.

Counterattacks may be launched by severely depleted units with positive results. The 12th Infantry Regiment was at 50%, but timely commitment of its reserve to secure the regiment's southern flank broke the enemy's momentum. ²⁶

This first case seems to imply that a tactical defender should counterattack as soon as possible. He may not be able to make the attacker culminate through defensive action only. As in the case of the 4th Division, the defender may not have the resources or depth to defeat the attacker via passive measures. The defender in such a situation must cause the attacker to culminate with immediate offensive action.

NAKTONG 1950

The second case study is the defense of the

Naktong River on the edge of what became known as the Pusan Perimeter. It was there that the U.S. 24th Infantry Division successfully defended against the North Korean 4th Infantry Division. The North Korean Peoples Army (NKPA) attacked across the 38th Parallel at 0400, 25 June 1950, shattering the post-war calm of the Korean Peninsula and thrusting the United States into war just five short years after the end of World War II.

The units initially sent to defend South Korea were not prepared to fight the NKPA. The end of World War II caused a rapid reduction in the U.S. armed forces. The units on active duty in the far east were poorly trained and equipped. ²⁷ General Douglas MacArthur, Commander in Chief, Far East Command, hurriedly sent the 24th Infantry Division from Japan to Korea in an effort to slow the North Korean attack. In many respects this was the worst choice he could have made, for the division had the lowest aggregate strength and combat effectiveness rating in the Far East Command. However, it was the closest division to the peninsula. ²⁸

The lead element of the 24th Division, Task Force Smith, first fought the NKPA on 5 July 1950. Time after time the task force was either outflanked or overrun. General MacArthur desperately moved forces in

to reinforce the beleaguered South Koreans and Americans. In fights at Ch'onan, Chonui, Choc'iwon and finally the Kum River, the division lost over 6000 men, including the division commander and most of its equipment. ²⁰ By late July the 24th Division desperately needed relief.

The 1st Cavalry Division relieved the 24th Division 22 July. Eighth Army placed the division in reserve. However, the division was recommitted on 24 July when it had to shift southward to block another attack. The Eighth Army commander, General Walton Walker, ordered the division back behind the Naktong River line on 1 August.

The 24th Division was initially positioned on the southwest face of the Pusan perimeter. It occupied a sector from the junction of the Nam and Naktong Rivers to the village of Hyonp'ung. The 25th Infantry Division was on its right and the 1st Cavalry Division was on its left. The division's plan was to outpost the river. The forward forces would make contact and report on enemy forces while local counterattacks would contain any penetrations. If these failed, the division commander would commit a general reserve to counterattack. This plan evolved because the division did not have the people or equipment to emplace a strong defense all along its front. It did, however,

have the forces to have strong reserves for counterattacking. ³⁰

As the 24th Infantry Division moved to take up a defensive sector behind the Naktong at the juncture of the Nam River, we may note that preparation of the 24th Division's defense does not conform to Clausewitz's concept. The 24th started to occupy its positions 2 August. It completed the occupation on 3 August. The first NKPA attacks occurred on 5 August, less than 48 hours later. The division did not have the strength to prepare a detailed defense. Its infantry regiments normally defended on a front of 10,000 yards at full strength. However, they were at 53% combat effectiveness and defending on a front of 20,000 yards. ³¹ The division planned to use the key hilltops to economize on forces and provide overwatch for key avenues of approach. Its plan was to hold the fording sites and road network while overwatching other areas. When the enemy attacked, the Americans would counterattack the penetrations. Clearly the new division commander, MG John Church, realized he did not have the strength all along his front to wear down the enemy.

As with the 4th ID in 1944, the 24th held the advantage in terrain. The Naktong River formed a giant moat around its positions. The river was one-quarter to

one-half mile wide and six feet deep. The hills running down to the river were 1,200 to 3,000 feet high with rice paddy valleys running between them. ³² There were four avenues of approach into the bulge and the 24th Division held them.

The defender in this case did not have the advantage of intelligence. Since the start of hostilities, the U.S. forces lacked intelligence on the attacking forces because of a scarcity of aerial photo reconnaissance. ³³ Most intelligence came from ground reconnaissance, observation posts, and some light plane overflights. Therefore, the 24th Division did not have adequate intelligence on the time and direction of the NKPA attacks.

U.S. forces had a technological advantage. Although neither the plane or helicopter played a great role in the 24th Division's fight, the U.S. had a marked advantage in aviation technology. ³⁴ The 24th Division still had World War II vintage equipment. The North Korean 4th Infantry had some equipment from the Chinese, but neither side had much armor. Therefore, the fight evolved into a mainly infantry battle.

The 24th Division had sustained 30 percent casualties and had lost 60-70% of its equipment. Consequently, it did not have the strength to launch a full scale attack prior to occupying the Nakdong. The

division did have the depth to maneuver, but it was spread thinly across a wide front.

The North Korean 4th Infantry Division attacked in the U.S. 24th Division's sector just after midnight on 6 August. After crossing the river in rafts, the North Koreans attacked into the 34th Infantry Regiment's area on the southern end of the 24th Division's sector. Confusion as to the extent of the enemy penetration allowed the North Koreans to penetrate over a mile into the division's sector before the 34th Regiment started local counterattacks around 0630. General Church ordered a counterattack by the 19th Infantry Regiment at 0830, at which time the enemy was about two miles into the sector. ³⁰

The enemy succeeded in reinforcing the west side of the river during the night of 6-7 August, despite the 34th and 19th Infantry counterattacks. On 7 August General Church received the 9th Infantry Regiment. He reorganized the 19th with the 9th Infantry Regiment to form Task Force Hill. Meanwhile, the 34th Infantry continued to conduct counterattacks to eliminate the penetration. The North Koreans brought still more reinforcements across the river during the night of 7-8 August.

The North Korean forces attacked almost to Yongson. There they occupied a series of ridges

dominating the U.S. main supply routes back to Yongson. ³⁶
On the 11th, with the 34th Infantry holding the enemy,
Task Force Hill counterattacked but failed to destroy
the penetration.

The Eighth Army sent the 27th Infantry Regiment
from the army reserve to reinforce the 24th Division.
Together with Task Force Hill the 27th Infantry
attacked on 13 August to break the enemy hold on
Cloverleaf and Obong-ni Ridges overlooking Yongsan.

General Walker became impatient with the inability
of the 24th Division to eliminate the enemy penetration
in the Naktong Bulge. He was worried about other enemy
penetrations along the Pusan Perimeter and he needed
this one destroyed quickly. Local counterattacks had
stalemated the attack but had not eliminated the
penetrations. General Walker attached the 1st Marine
Brigade to the 24th ID because of his concern. ³⁷

The 1st Marine Brigade initially attacked alone on
17 August to clear Obong-ni Ridge and failed. However,
coordinated counterattacks by the Marines with other
24th Division units on 17 and 18 August eliminated most
of the North Korean penetration east of the Naktong
Bulge. The 3rd Battalion, 5th Marines of the 1st
Marine Brigade conducted the final counterattack in
the 24th Division's sector on 19 August. The Battle of
the Naktong Bulge was over.

As one analyzes this case against the criteria, one must note first that the defender did not gain strength. North Korean attacks reduced the division to 46 percent combat effectiveness by 11 August. Again as in the Ardennes, the defender's strength lay in his ability to concentrate combat power in a counterattack. The division gained strength only when Eighth Army devoted more troops to the fight.

The 24th Infantry did not wait until the enemy wore himself down on its defenses to counterattack. The 24th counterattacked within hours of the penetration. As noted above, General Church realized he did not have the strength to hold the entire riverline. Therefore, his plan was not to wear the enemy down with his defenses but to locate and slow him, then counterattack to destroy his forces.

The capabilities of the battered 24th Infantry Division faced with elements of three North Korean Divisions allowed only a limited defense of the river line with counterattacks to eliminate local penetrations. ¹⁸

The defenders in this case were not as strong as the attacker - - they had not achieved overall parity in strength but were able to achieve local parity in strength in the counterattack area. The attacker was clearly approaching a point of culmination due to the obstacle between the point of their penetration and their bases. This is evident by the inability of the

North Koreans to reinforce their forces in the Naktong bridgehead after 8 August.

As in the Ardennes, the defender caused the attacker to reach his culminating point through offensive action in the form of counterattacks. Rather than defensive action followed by offensive action, the 24th Division relied on counterattacks to break the attacker's offensive momentum and caused him to culminate. Culmination, as Clausewitz meant it for the attacker, involves not being able to continue the attack or hold his gains by defending.³⁰ Unable to continue the attack or reinforce his attacking force, the North Korean forces went on the defense by occupying Obong-ni ridge.

As in the Ardennes example, the defender was inferior in strength to the attacker. The defender had only a terrain advantage. His initial defense did not stop the attacking force but it broke his momentum long enough to cause a window of opportunity for counterattacks. In neither case did the defender gain strength; however, in both cases the defender was able to create a local superiority of strength through offensive action.

In this case some of Clausewitz's defensive concepts were proven and some were not. Again we can conclude from this case that the defender does not gain

strength relative to the attacker by purely defending. He gains it by attacking at a decisive point when the attacker's momentum has been broken. Depth, preparation, and intelligence were not critical to the success in this case. However, key terrain was vital to stopping the enemy's attack. Once his attack stalled, the defender was able to focus offensive action to destroy him.

GOLAN HEIGHTS 1973

The final case study is a brief look at the 1973 Israeli defense of the Golan Heights. Ever since its creation in 1948, Israel had been involved in struggles for its survival. The roots of the 1973 war can be traced to the Israeli victories of 1967. In that war Israel took large buffer zones of territory from several Arab states including the Sinai, the West Bank and the Golan Heights. ⁴⁰

The United Nations tried to work out a political solution to the problems between Israel and her Arab neighbors. As early as November 1967 with Security Council Resolution 242, the U.N. called for the return of occupied territory and a peaceful solution to the other Arab-Israeli problems. From the end of 1967 to late 1973, neither side made any real progress.

During the six years since the last war, Israel proceeded to build fortifications along its new

borders. This included the Bar-Lev line along the Suez Canal and a series of 12 well built fortifications positioned on all the critical avenues of approach into the Golan Heights. ⁴¹ Behind the defenses the Israelis built a road system to provide depth, rapid access, and flexibility to forces deployed in the Golan defenses.

The Israeli concept of defense for the Golan was for a light forward line of strongpoints occupied by infantry to cover the demilitarized zone. This infantry was to be backed up by mobile, armored forces. These forces could move up to occupy forward positions or counterattack. ⁴² The mobile, armored force in the northern zone was the 7th Armored Brigade.

The 7th Armored Brigade occupied this sector on the morning of 6 October 1973. The 7th Brigade was opposed by the Syrian 7th Infantry Division backed up by the Syrian 3rd Infantry Division. The Syrians attacked at 1400, 6 October under cover of massive air strikes.

Based on Clausewitz's notion that the defender should have prepared positions one notes that the Israelis did have them. The Golan defenses, like the Suez defenses, consisted of a series of strong-points, obstacles, and an elaborate internal transportation network.

The defender had the advantage in terrain in the

Golan. One reason the Israelis attacked in 1967 was to seize the dominant terrain of the Golan. From these heights Syrian artillery and Arab commandos had harassed Israeli settlements in the Jordan River Valley. ⁴³ Possession of these heights gave the Israelis control of the approaches out of Syria and Lebanon.

The Arab forces who attacked on 6 October achieved some strategic surprise over the Israeli forces. Each side had gathered much intelligence on each other over the past six years. The Israelis expected an attack to come soon but did not expect an attack on Yom Kippur. They either did not have the right intelligence on the final Arab build-up or ignored intelligence indicators. In the Golan, Israel took note of the Syrian build-up, but did not realize its significance. ⁴⁴ Because of this lapse in intelligence, the Israeli forces did not mobilize until 0830 on the morning of 6 October.

Both sides were technologically equivalent. The Israeli Army was organized into brigades equipped with U.S. weapons including improved M48A2 tanks in addition to M60s and MK5 Centurions. The Syrian Army patterned itself according to Soviet doctrine. It had acquired T55 and T62 tanks along with Soviet armored personnel carriers, Sagger missiles, and RPG-7s. ⁴⁵

The Israeli forces on the Golan were aware of the

Syrian build-up and had been reinforced prior to Yom Kippur. Defense Minister Moshe Dayan had ordered the 7th Armored Brigade to the northern sector of the Golan after visiting the Northern Command and reviewing intelligence reports of Syrian build-ups. ⁴⁶ The 7th Brigade was on alert and expecting the attack just prior to the Syrian onslaught.

The 7th Brigade based its plan on counterattacks to destroy enemy penetrations. The obstacles and infantry strongpoints would channel and slow an attacker while armored counterattacks would strike to destroy him. The Israeli plan was based on forward defenses and rapid counterattacks because the Golan offered no depth for the defender. The Israelis also could not trade space for time because of the reality of fighting a two front war. ⁴⁷

The Syrian 7th Division attacked at 1400 on 6 October. The Israelis were outnumbered by 105 tanks to 250 and by more than 7 to 1 in men. ⁴⁸ Almost immediately, the Syrians in the north were bogged down in the forward defenses. The Israelis employed counterattacks beginning within hours of the attack. However, the brigade would need innovative, aggressive, offensive action to overcome the Syrian numerical superiority.

Colonel Janos Avigdor, the 7th Brigade Commander,

split his force into two combat teams. Since the Syrians were concentrating on trying to control the road network, Avigdor concentrated his counterattacks on the roads. His tankers continuously attacked across the roads to hit the Syrian tank columns in the flank.

" This pattern of mobile, armored counterattacks continued for four days and three nights. The northern sector held out so well in the early days that newly mobilized reserves were not committed there but in the south where the 188th Armored Brigade was almost completely destroyed. " This prevented any reinforcement of the 7th Brigade. The Syrian attack had started on Saturday, 6 October at 1400 hours and by Tuesday, 9 October the 7th Brigade was down to seven tanks; however, before them in the 'Valley of Tears' lay 500 enemy tanks and armored vehicles. "1

The 7th Brigade mustered enough tanks to launch one more counterattack. This was enough to break the Syrian advance. They withdrew to the cease-fire 'Purple Line.' "2

In analyzing this case one must first distinguish this fight from the two previous examples. First, unlike the 4th Infantry in the Ardennes or the 24th Infantry on the Naktong, the 7th Brigade in the Golan was in well prepared positions.

The 7th Brigade was aware that they were subject

to attack although Israel did not mobilize its forces until 0830 the morning of the attack. The 7th Brigade was occupying its positions. The problem lay in time to mobilize reinforcements to back up the forward defenses. Only three reserve divisions were designated for deployment on the Golan Heights. ⁸³

All the key elements of Clausewitz's theory of the defense are present in this case study except depth. The Golan offered the defender 65 kilometers of width and only 30 kilometers maximum depth. ⁸⁴ This facilitated prepared positions forward. The flaw was the dependence on time to mobilize reserves.

The Syrians surprised the Israelis. The Israelis could not mobilize reserves quickly enough. The reserves that did reach the Golan were dedicated to the 188th Brigade. This left the 7th Brigade alone and outnumbered. They initially faced two Syrian divisions. In this respect, the Golan was like the Ardennes and the Naktong.

The Israeli's overall strength did not increase. The brigade achieved superiority through focusing combat power via counterattacks. The 7th Brigade was down to seven tanks by 9 October. By repairing damaged tanks, the brigade was able to launch its final attack with twenty tanks. The Israelis executed their initial counterattack the first night of the Syrian attack

within hours of the initial assault. The 3rd Syrian Division had not closed on the fight. The Israeli 7th Brigade counterattacked for three days. By the time the Syrians withdrew to the Purple Line the Israelis had killed enemy vehicles at a ratio of 12 to 1. ⁸⁵

This case study again shows that the defender did not wait for the attacker to culminate. By concentrating on areas where the enemy had to go (the roads), the Israeli's took advantage of breaks in the Syrian's forward progress.

Again, here as in the two previous cases, the attacker vastly outnumbered the defender. Also, the defender was able to concentrate superior combat power at critical points through offensive action. The Syrians, like the Germans in the Ardennes but unlike the North Koreans, moved across a border and had only to attack a short distance. Thus, they had expended little combat power.

Here Clausewitz's theories seem to be more valid than in previous examples due to the prepared nature of the defenses and the intelligence on the attacker. The Golan is an excellent example of a numerically inferior defending force defeating a larger force through offensive action.

As in previous examples the attacker culminated because of counterattacks. It was not to the defender's

advantage to wait because he would not gain strength as he could not trade space for time and reinforcements were not forthcoming.

The conclusions of the above cases reinforces most of Clausewitz's concepts. They shed a different light on how an attacker culminates and when to execute a counterattack at the tactical level.

V. CONCLUSIONS

The first conclusion concerning Clausewitz's concepts of defense and culmination is that they are generally correct. In all cases the defender used a combination of reactive or defensive measures and active or offensive measures to defeat the enemy.

However, not all cases validate Clausewitz's characteristics for the defense. The Israeli defense of the Golan was successful without depth. The U.S. 4th and 24th Divisions were successful despite having little or no intelligence.

Other parts of his defensive concepts do seem to apply. The successful defense must be offensively oriented. Even with each force being greatly outnumbered, the defender can defeat an attacker through immediate counterattacks.

Depth is desirable but may not be absolutely necessary. Depth is a relative characteristic. Adequate depth depends on the nature of the terrain, defending

forces, and commander's concept of the defense. The 4th Division in the Ardennes did a good job in dense terrain with good depth using mainly infantry forces with armor to counterattack. In the Golan, the 7th Brigade had less than 3 kilometers of depth but had control of the roads. The brigade counterattacked along these roads and passes to defeat the Syrians.

The 4th Division in the Ardennes surprised the Germans by resisting in the towns to break up the German attack. The 7th Brigade slowed the Syrians by putting up unexpectedly stiff resistance along obstacles such as tank ditches and in the passes of the Golan.

The use of key terrain is one characteristic that was critical in all of the cases. The forests of the Ardennes combined with resistance in the towns and control of the roads enabled the 4th Division to thwart the German hopes of a quick infiltration. The 24th Division's defense of key terrain along the Naktong kept the North Koreans from reinforcing their bridgehead. The 7th Brigade controlled the passes into the Golan. This permitted the brigade to focus its counterattacks on the key road networks through these passes. Ultimately, the control of this key terrain enabled the 7th Brigade to defeat a much larger Syrian force.

Preparation varied in each of the three cases. The 24th Infantry Division had less than 48 hours to prepare. The 4th Infantry Division had less than a week using severely understrength forces. The 7th Brigade defended, though vastly outnumbered, positions that Israel had been preparing since 1967. All defended successfully by counterattacking to destroy attacking forces. This would seem to indicate that elaborate preparations may not be essential to successful tactical defense. What seems to be key is possession of key terrain. The control and use of terrain that gives the defender a marked advantage over the enemy, such as the roads and passes of the Golan and the approaches out of the Naktong Valley, appears to be a key consideration.

The portion of the concept concerning the relationship of the strengths of the defender versus the attacker does not seem to be valid. In all cases the attacker started stronger than the defender. In all cases the overall strength of the defender did not increase. However, each defender was able to achieve a relative superiority in combat power over the attacker for a limited time at the point of the counterattack.

The culminating point of the defense does not exist in the same form at the tactical level as Clausewitz envisioned in his time. Today's forces move

at blistering speeds and wield weapons of unprecedented destruction. It is harder to get an enemy to close with and wear himself down against a prepared defense. He is more apt to penetrate at a weak part of the defense or bypass it altogether.

What this means to the modern defender is that tactical culmination will more often occur after a counterattack. The defense does more to slow and position the attacker than defeat him alone. This is especially true for an outnumbered defender. In both the case of the 24th Infantry Division and the 7th Armored Brigade, the forward defenses slowed and channeled the enemy while offensive action destroyed him. Modern defenses may also wear down an attacker, such as with mine kills and direct fire kills from static positions, but most of the killing in the tactical defense will come about due to counterattacks.

Major Charles O. Hammond in his monograph "Does the Culminating Point Exist at the Tactical Level", notes:

The short duration and relatively short distance travelled in a tactical engagement or battle make the tactical defender's task much more difficult. He cannot rely on the attacker's own exertions to logistically support himself to cause depletion of combat power. He must tip the balance to his favor through violent blows at the attacker's combat forces. "

What this implies is that the defender should not

look for a traditional culminating point to mark when to launch a counterattack. Counterattacks at the tactical level must be executed at the first possible opportunity the commander sees to exert overwhelming combat power. This should be at the time he can break the attacker's momentum. What this further implies is that if immediate offensive action by an inferior force can break an attacker's momentum and cause him to culminate, then the defender is better off not to wait for a shift in the strengths of the attacker versus the defender.

So, was Clausewitz wrong about waiting? Not really. Remember, we discussed how Clausewitz wrote about different levels of war. Brigadier General Huba Wass de Czege warned that: 'Terms that may have been interchangeable or very close in actual meaning in his time no longer are so.' He also points out that in Clausewitz's time the head of state often commanded on the battlefield. Thus strategy, operational art and tactics were intertwined. ⁸⁷

At the operational level of war, extended distances and time may allow for large units to culminate in the defense. However, at the tactical level, defensive culmination is not the same. However, it is still an important concept. The heart of operational warfighting is the structuring and

sequencing of tactical actions.

Clearly Clausewitz's intent is that the defender should wear the attacker down and break his momentum, then apply superior combat power to destroy him. At the tactical level the defender gains a positional advantage over the attacker. The attacker stalls in a web of obstacles. He is channeled so that the defender can bring direct and indirect fire on him. When his attack reaches a point where the defender can bring greater combat power to bear, he counterattacks.

One implication may be that perhaps at the tactical level the defense is not the stronger form of war today. All the defending forces in each case counterattacked and defeated larger forces. The degree of preparation of the defenses varied from unprepared to well prepared. The common denominator in each victory was defensive action to slow or stop an attacker followed by immediate counterattacks. This seems to imply that greater destructive power is generated through offensive action. Perhaps a smaller defending force can, through offensive action, stop a larger attacking force, such as in the Ardennes in 1944 and the Golan in 1973. Therefore, we may come to the conclusion that attacking brings more combat power to bear than defending.

The idea that the tactical culmination of defense

is the time to counterattack furthers the importance of the tenets of AirLand Battle. The defender makes an attacker culminate by applying superior combat power at the critical time and place. This requires the attacker to exercise agility to be alert to the time and place that the attacker will stall and expose himself to the counterattack. The defender must synchronize direct and indirect fires at the time and place of the counterattack to have superior combat power at the point of decision, particularly if he is weaker than the attacker. Once the attacker is vulnerable, the defender must not wait to act . He must display initiative and attack. Finally, the defender must track and destroy the attacker in depth even before he hits his defenses. This will allow him to speed the attacker's culmination and ensure he can achieve the combat power superiority that he needs to bring a final culmination of his attack and destroy the attacker when he reaches a decisive point in his defenses.

The culminating point has great utility for the tactical defender, because it is he who holds the key to its existence. The defender determines when, where and how to counterattack to destroy an attacker and cause him to culminate. With a properly prepared and executed defense and counterattack, a smaller force can

defeat a larger one. It is this sequence of defending and counterattacking which Clausewitz spoke of when he stated: "So the defensive form of war is not a simple shield, but a shield made up of well-directed blows." 88

ENDNOTES

1. U.S. Army, Field Manual 100-5, Operations, (May, 1986), p. 129.
2. Carl Von Clausewitz, On War, (Princeton, 1976), p. 379.
3. U.S. Army, Field Manual 100-5, p. 129.
4. Clausewitz, On War, p. 358.
5. Ibid, p. 383.
6. Ibid, p. 528.
7. Ibid., p. 383.
8. Ibid., p. 383.
9. Ibid., p. 128.
10. Ibid., p. 177.
11. U. S. Army, Field Manual 100-5, p. 10.
12. John T. Litchfield & SG 10, 'The Ardennes: The Battle of the Bulge: Winter Defense and Counterattack', Combat Studies Institute Battlebook, (May, 1984), pp. 1-2.
13. Ibid., p. 19 .
14. Ibid., p. 18.

15. Ibid., p. 37.

16. Charles B. MacDonald, A Time for Trumpets: The Untold Story of the Battle of the Bulge, (New York, 1985), p. 154.

17. Litchfield, "The Ardennes: The Battle of the Bulge", p. 37.

18. Litchfield, "The Ardennes: Battle of the Bulge", p. 44.

19. MacDonald, A Time for Trumpets, p. 155.

20. Litchfield, "The Ardennes: Battle of the Bulge", p. 45.

21. Ibid. pp. 43-44.

22. Hugh H. Cole, United States Army in World War II, The European Theater of Operations, The Ardennes: Battle of the Bulge, (Washington, 1965), p. 258.

23. Ibid. p. 45.

24. Ibid., p. 52.

25. Ibid., p. 52.

26. Litchfield, "The Ardennes: Battle of the Bulge", p. 64.

27. Charles Harris & SG 9B, "The First Battle of the Naktong Bulge", Combat Studies Institute Battlebook, (May, 1984), p. 10.

28. William G. Robertson, "Counterattack on the Naktong, 1950", Leavenworth Paper, No. 13., (December, 1950), p. 6.

29. Ibid., p. 8.
30. Ibid., p. 19.
31. Ibid., p. 16.
32. Charles Harris, "First Battle of the Naktong Bulge", p. 14.
33. Ibid., p. 26.
34. Ibid, p17.
35. Robertson, Counterattack on the Naktong, 1950, p. 25.
36. Harris, "The First Battle of the Naktong Bulge", p. 44.
37. Ibid., p. 44.
38. Ibid, p. 37.
39. Clausewitz, On War, p. 528.
40. Chaim Herzog, The Arab - Israeli Wars: War and Peace in the Middle East from the War of Independence through Lebanon, (New York, 1984), p. 227.
41. U.S. Army Command and General Staff College, Reference Book 100-2, Volume I: Selected Readings in Tactics, The 1973 Middle East War in P118 Selected Readings, (Fort Leavenworth, 1980), p. 19.
42. Ibid., p. 20.

43. Ibid., p. 17.
44. Ibid. p. 22.
45. Frank Aker, October 1973: The Arab - Israeli War, (Hamden, 1985), pp. 148-151.
46. Trevor N. Dupuy, Elusive Victory: The Arab - Israeli Wars, 1947-1974, (Fairfax, 1984), p. 440.
47. Charles O. Hammond, "Does the Culminating Point Exist at the Tactical Level?", AMSP Monograph, (Fort Leavenworth, 1990), pp. 18-19.
48. Aker, October 1973, p. 148-149.
49. Ibid., pp. 74-75.
50. Ibid., p. 76.
51. Herzog, The Arab - Israeli Wars, p. 289.
52. Ibid., p. 289.
53. USACGSC, RB 100-2, Vol I, The 1973 Middle East War, p. 20.
54. Dupuy, Elusive Victory, p. 437.
55. Aker, October 1973, p. 76.
56. Charles O. Hammond, "Does the Culminating Point Exist at the Tactical Level?", pp. 29-30.
57. Huba Wass de Czege, "Clausewitz: Historical Theories Remain Sound Compass References; The Catch is Staying on Course," Army, (September, 1988), p. 39.

58. Clausewitz, On War, p. 357.

BIBLIOGRAPHY

BOOKS

- Acker, Frank. October 1973: The Arab - Israeli War. Hamden: Archon Books, 1985.
- Asher, Jerry. Duel for the Golan: The 100 Hour Battle that Saved Israel. New York: William Morrow and Company, Inc., 1987.
- Blair, Clay. The Forgotten War, America in Korea 1950-1953. New York: Anchor Books, 1988.
- Clausewitz, Carl Von. On War. Princeton: Princeton University Press, 1976.
- Cole, Hugh M. The U.S. Army in World War II, The European Theater of Operations, The Ardennes: Battle of the Bulge. Washington: Chief of Military History, 1965.
- Dupuy, Trevor N. Elusive Victory: The Arab - Israeli Wars 1947-1974. Fairfax: Hero Books, 1984.
- Herzog, Chaim. The Arab Israeli Wars. New York: Vintage Books, 1984.
- Howard, Michael. Clausewitz. Oxford: Oxford University Press, 1983.
- Jomini, Antoine H. Art of War: Roots of Strategy, Book 2. Harrisburg: Stackpole Books, 1987.
- Kahalani, Avigdor. The Heights of Courage, A Tank Leaders War on the Golan. Westport: Greenwood Press, 1984.
- MacDonald, Charles B. A Time for Trumpets: The Untold Story of the Battle of the Bulge. New York: Bantam Books, 1985.
- Von Leebe, Ritter. Defense. Harrisburg: Military Service Publishing Company, 1943.

PERIODICALS

- Alterman, Eric. "Uses and Abuses of Clausewitz." Parameters, (Summer 1987), 18-32.
- Armstrong, Richard. "Repelling Counterattacks and Counterstrikes." Military Review, (July 1989), 64-

75.

Ash, Sherwood. "Counterattack Planning." Armor,
(November-December 1983), 23-25.

Cronin, Patrick M. "Clausewitz Condensed." Military
Review, (August 1985), 40-49.

Hall, George M. "Culminating Points." Military Review,
(July 1989), 79-86.

Hewitt, William D. "Thoughts on Counterattacks." Armor,
(September-October 1984), 30-32.

Wass de Czege, Huba, "Clausewitz: Historical Theories
Remain Sound Compass References; The Catch is
Staying On Course." Army, (September 1988), 37-39.

MONOGRAPHS

Betson, William R. "The Problem of Width: Division
Tactics in the Defense of an Extended Front",
School of Advanced Military Studies, U.S. Army
Command and General Staff College, Fort
Leavenworth, Kansas, January 1987.

Drinkwater, John P. "When to Execute the
Counterstroke", School of Advanced Military
Studies, U.S. Army Command and General Staff
College, Fort Leavenworth, Kansas, May 1986.

Hammond, Charles O. "Does the Culminating Point Exist
at the Tactical Level", School of Advanced
Military Studies, U.S. Army Command and General
Staff College, Fort Leavenworth, Kansas, March
1990.

Robertson, William G. "Counterattack on the Naktong,
1950." Leavenworth Papers, No. 13. Combat Studies
Institute, U.S. Army Command and General Staff
College, Fort Leavenworth, Kansas, December 1985.

BATTLE STUDIES

Harris, Charles and CGSC Staff Group 9B. "The First
Battle of the Naktong Bulge", Combat Studies
Institute, U.S. Army Command and General Staff
College, Fort Leavenworth, Kansas, May 1984.

Litchfield, John T. and CGSC Staff Group 10A. "The
Ardennes: Battle of the Bulge: Winter Defense and

Counterattack", Combat Studies Institute, U.S. Army Command and General Staff College, Fort Leavenworth, Kansas, May 1984.

DOCUMENTS

Field Manual 100-5, Operations. Washington, D.C. HQ Department of the Army, 1986.

Reference Book 100-2, Volume I, Selected Readings in Tactics; The 1973 Middle East War. Fort Leavenworth, Kansas, U. S. Army Command and General Staff College, March 1980.